

EXHIBIT A

Dyson Tech. Ltd. and Dyson, Inc. v. Maytag Corp.
Case No. 05-434-GMS (D. Del.)

EXHIBIT A

JOINT CLAIMS CONSTRUCTION CHARTS

CLAIM TERMS FROM THE ASSERTED PATENTS¹ THAT
DYSON AND/OR MAYTAG CONTEND REQUIRE CONSTRUCTION BY THE COURT²

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
1	'515 [14] '748 [15] '008 [1, 23]	"dirty air inlet" [to outer container]	<p>an opening via which the dirty air sucked up by the vacuum cleaner flows into the outer container of the cyclonic apparatus</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, elements 16, 58, 86; Col. 4:38-43; Col. 5:59-62; Col. 5:64-67; Col. 6:66-7:1; Col. 7:55-56 '748 patent, elements 13b and 13c; Col. 1:64-2:5; Col. 2:42-46; Col. 3:18-21 '008 patent, element 13b; Col. 2:1-4; Col. 2:59-62; Col. 3:40-41; Col. 3:63-65</p>	<p>a passage by which dirty air flows into the outer container of the cleaning apparatus</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, elements 16, 57, 86; col. 4, ll. 59-65; col. 5, l. 64 – col. 6, l. 2; col. 6, l. 66 – col. 7, l. 1 '748 patent, element 13b; col. 3, ll. 18-19 '008 patent, element 13b; col. 2, ll. 59-62</p>

¹ The patents asserted in this action by Dyson are: (1) U.S. Patent No. 4,643,748 ('748 patent); (2) U.S. Patent No. 4,826,515 ('515 patent); (3) U.S. Patent No. 4,853,008 ('008 patent); and (4) U.S. Patent No. 5,858,038 ('038 patent).

² The parties reserve all arguments regarding application of the doctrine of equivalents and/or prosecution history estoppel to any term of the asserted patents.

³ The Claims in which the terms to be construed appear are listed in brackets following the patent number. Unless otherwise indicated, the constructions advanced by the parties are intended to apply to every instance where a construed term is used within each patent for which the term is listed. To the extent a different form of a term appears elsewhere in the claims, the constructions advanced by the parties are intended to apply, as modified appropriately to account for the difference in form.

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
2	'515 [14] '748 [15]	"an upper portion of the outer container"	a portion of the outer container that is above the midline of the outer container <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Col. 8:44-46 '748 patent, Col. 4:35-37	at or near the top of the outer container <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, elements 16, 57, 86 as shown in drawings '748 patent, elements 13b, 13c as shown in drawings
3	'515 [14] '748 [15] '008 [1]	"oriented for supplying dirt laden air into the container tangentially to the interior surface of the outer container"	configured to allow dirt laden air sucked up by the vacuum cleaner to flow into the container tangentially to the interior surface of the container <i>See, e.g.:</i> ordinary meaning of the claim language '748 patent, Col. 2:39-45 '008 patent, Col. 2:1-3	arranged to cause dirt laden air to enter the container in a direction perpendicular to the radius of the interior surface of the outer container at its point of entry <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, drawings and col. 5, ll. 64-67; col. 4, ll. 59-62 '748 patent, Fig. 1 and col. 2, ll. 14-15 '008 patent, Fig. 1 and col. 2, ll. 59-62
4	'515 [14] '748 [15] '008 [1, 23]	"an air outlet from the container at an upper portion of the container"	an air outlet in the upper half of the outer container through which the air circulating in the outer container can move from that container into the inner, cone-shaped cyclone mounted within the container <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Fig. 5; element 25; Col. 5:8-11; element 66; Col. 6:13-17; elements 90 and 91; Col. 6:62 - 7:4 '748 patent, abstract; element 13d; Fig. 1; Col. 1:7-9; Col. 1:23-26; Col. 2:26-38; Col. 3:11-26; Col. 3:50-54 '008 patent, Fig. 1; element 13h; Col. 2:1-9; Col. 2:26-29; Col. 2:50-66; Col. 3:40-47	an air outlet from the container at or near the top of the container <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Fig. 5; col. 6, l. 62 - col. 7, l. 7 '748 patent, Fig. 1; col. 3, ll. 11-26 '008 patent, Fig. 1; col. 2, ll. 50-66; col. 3, ll. 40-56

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
5	'515 [14] '748 [15] '008 [1, 23]	"a cyclone air inlet at an upper end . . . of the cyclone in air communication with the air outlet of the container"	an air inlet on the top portion of the inner cyclone into which air from the outer container's air outlet can pass <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; elements 22, 63, 94 and 109; Col. 2:38-41 '748 patent, Fig. 1; Col. 3:18-21 '008 patent, Fig. 1; Col. 2:59-63	an air inlet at the top of the cyclone, having a first diameter, in air passing communication with the air outlet of the container <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Fig. 5; col. 6, l. 57 – col. 7, l. 20 '748 patent, Fig. 1; col. 3, ll. 10-26 '008 patent, Fig. 1; col. 2, ll. 50 – col. 3, l. 68; col. 3, ll. 40-56
6	'515 [14] '748 [15] '008 [1, 23]	"which has a circular cross section"	the outer container has a circular cross section <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Col. 4:68; Col. 6:5; Col. 6:35-37 '748 patent, Fig. 8; Col. 1:58-61; Col. 1:67 – 2:3; Col. 2:43-47 '008 patent, Col. 1:66 – 2:4	the dirty air inlet has a circular cross section <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5; col. 4, ll. 59-65; col. 5, l. 64 – col. 6, l. 2; col. 6, l. 57 – col. 7, l. 4 '748 patent, Fig. 1; element 13b; col. 3, ll. 11-26 '008 patent, drawings; elements 13c and 14; col. 2, l. 50 – col. 3, l. 5
7	'515 [14] '748 [15] '008 [1, 23]	"maintaining its velocity to a cone opening smaller in diameter than the diameter of the upper end of the cyclone"	the conical shape of the cyclone assists in keeping the air flow moving as it makes its way from the air inlet at the top of the cyclone to the smaller cone opening at the bottom of the cyclone. <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; Col. 2:42-46; Col. 3:14-18; Col. 4:9-13; Col. 8:1-4	the frusto-conical shape of the cyclone serves to keep the air flow at a constant velocity or speed as it makes its way from the air inlet at the top of the cyclone to the smaller cone opening at the bottom of the cyclone <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5, 6; col. 2, ll. 38-63; col. 3, ll. 3-42; col. 4, ll. 3-15

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
8	'515 [14] '748 [15] '008 [1, 23]	"the air inlet being oriented for supplying air tangentially to the surface"	<p>'748 patent, Fig. 1; Col. 2:9-13; Col. 3:27-42 '008 patent, Fig. 1; Col. 2:10-13</p> <p>the air inlet to the inner cyclone being oriented such that the air flows from the outer container into the inner cyclone tangentially so that it rotates around the inner surface of the inner cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; elements 22, 63, 94 and 109; Col. 2:38-41; Col. 5:19-26; Col. 7:1-4 '748 patent, Col. 3:11-26 '008 patent, Fig. 4; Col. 1:62-63; Col. 3:40-48</p>	<p>'748 patent, Fig. 1; col. 1, l. 64 – col. 2, l. 37; col. 3, ll.10-42 '008 patent, Fig. 1; col. 1, l. 64 – col. 2, l. 47</p> <p>the air inlet is arranged to supply air to the surface in a direction perpendicular to the radius of the surface</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent; Figs. 3, 4, 5; col. 6, l. 66 – col. 7, l. 20; col. 6, ll. 9-30; col. 5, ll. 4-25 '748 patent, Fig. 1; element 13h; col. 3, ll. 11-26 '008 patent, Fig. 4; col. 3, ll. 40-56</p>
9	'515 [14] '748 [15] '008 [1, 23]	"a cyclone air outlet communicating with the interior of the cyclone adjacent the upper end of the cyclone"	<p>an air outlet at the upper portion of the inner cyclone which allows air that has already traveled down the inner surface of the cyclone to escape from the interior of the cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; elements 35, 77, 105, 111; Col. 2:46-49; Col. 3:32-35 '748 patent, Fig. 1, element 13j; Col. 2:19-22 '008 patent, Fig. 1; col. 3:46-65</p>	<p>an outlet into which air within the interior of the cyclone enters at the upper end of the cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5, 6; col. 6, l. 50 – col. 7, l. 20; col. 7, ll. 21-39; col. 5, ll. 26-53 '748 patent, Fig. 1; element 13j; col. 3, ll. 11-26 '008 patent; Figs. 1, 4; elements 13d, 3; col. 2, l. 50 – col. 3, l. 5</p>

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
10	'515 [14] '748 [15] '008 [1, 23]	"a dirt receiving and collecting chamber extending from the bottom of the container to a portion of the outer surface of the cyclone" and "a dirt receiving and collecting chamber extending from the cone opening"	a dirt collection chamber extending from the bottom of the outer container to a portion of the outer surface of the cyclone <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, abstract; Figs. 1, 3, 5 and 6; elements 12, 53, 99, 112; Col. 2:38-3:2; Col. 3:22-38; Col. 3:43-47; Col. 3:60-62; Col. 4:50-54; Col. 5:26-40; Col. 5:54-63; Col. 6:31-41; Col. 7:7-39 '748 patent, Fig. 1; element 15; Col. 2:18-26; Col. 3:29-41 '008 patent, Fig. 1; element 20; Col. 3:6-21	Re: '515 patent – a chamber for receiving and collecting dirt that extends from the bottom of the container to a portion of the outer surface of the cyclone <i>See, e.g.:</i> ordinary meaning of the claim language Figs. 1, 3, 5, 6; col. 2, ll. 38-63; col. 5, ll. 26-63; col. 6, ll. 38-41; col. 7, ll. 4-39 Re: '748 and '008 patents – a chamber for receiving and collecting dirt extending from the cone opening <i>See, e.g.:</i> ordinary meaning of the claim language '748 patent, Fig. 1; col. 3, ll. 27-42 '008 patent, Fig. 1; col. 3, ll. 6-21
11	'515 [14]	"wherein the receiving chamber has a circular cross-sectioned inner surface around the axis with a minimum diameter furthest from the cone opening of 3 times the diameter of the cone opening"	the dirt collection chamber has a circular cross-sectioned inner surface around the axis and a diameter at the end of the chamber furthest from the opening at the bottom of the cone-shaped inner cyclone that is a minimum of 3 times the diameter of that opening <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; Col. 8:27-35	wherein the dirt receiving and collecting chamber has a circular cross-sectioned inner surface around the axis, with a diameter furthest from the cone opening of at least 3 times the diameter of the cone opening <i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, col. 8, ll. 27-39

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
12	'515 [14] '748 [15] '008 [1, 23]	"which passes sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet"	<p>air sucked up by the vacuum cleaner passes through the cyclonic apparatus of the vacuum cleaner in the following order: first, it passes through the dirty air inlet into the outer container; second, it passes from the outer container to the air inlet at the top of the inner, cone-shaped cyclone; third, it passes down the cone-shaped cyclone into the dirt receiving chamber; and fourth, it passes up the inner cyclone through the center and into the air outlet at the upper portion of the cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '515 patent, Col. 2:38-63; Col. 3:32-38 '748 patent, Col. 1:64-2:26; Col. 2:39-68 '008 patent, Col. 1:65-2:26</p>	No construction required – ordinary meaning of the claim language
13	'515[14]	"means for generating an airflow"	<p>a motor driven fan unit and equivalents</p> <p><i>See, e.g.,</i> '515 patent, elements 13, 54 and 121; Col. 2:57-63; Col. 3:32-38; Col. 4:50-54; Col. 5:56-57; Col. 6:50-55; Col. 7:19-20; Col. 8:13-16; Col. 8:44-46</p>	<p>a motor driven fan unit positioned vertically above and immediately adjacent the cyclone outlet port</p> <p><i>See, e.g.:</i> '515 patent, elements 13, 54, and 121 in the specification and drawings; Figs. 1, 3, 5, 6</p>
14	'748 [15]	"a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone"	<p>a disc which is on the outside of the inner cyclone between the dirt collection chamber and the air outlet of the outer container and around the longitudinal axis of the inner cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '748 patent, Col 3:1-4; Col. 4:35-37; Col. 6:57-66</p>	<p>a disc positioned on the outside surface of the cyclone, the disc having a detent in a smaller opening that engages an attachment ring on the cyclone, the disc having a downwardly tapered wall and an annular flange extending toward the inside wall of the container, the disc being midway between the receiving and collecting chamber and the air outlet of the container and around the longitudinal axis of the</p>

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
15	'008 [1, 23]	"a shroud means mounted on and around the outer surface of the cyclone and having opposed ends along the longitudinal axis and providing for outlet air from the container into the air inlet to the cyclone"	<p>a shroud designed to act as an air outlet from the outer container to the air inlet of the inner cyclone which is mounted on and around the outer surface of the cone-shaped inner cyclone and has opposing ends along the longitudinal axis of the inner cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '008 patent, Figs. 1 and 2; Col. 1:19-49; Col. 2:26-47; Col. 3:66-68</p>	<p>cyclone.</p> <p><i>See, e.g.:</i> '748 patent, Figs. 1 and 2; col. 3, ll. 43-54; col. 4, ll. 26-28</p> <p>a combined integral shroud and disc unit provides for outlet air from the container into the air inlet to the cyclone, and includes a cone-shaped disc with a larger downwardly tapered portion facing the bottom of the container, the unit being tapered with walls parallel to the outside of the cyclone, the walls ending in a flange that surrounds and encloses the passage to the inner cyclone, and the disc having a downwardly inclined angle between about 97.5° to 110° from a central axis of the unit.</p> <p><i>See, e.g.:</i> '008 patent, Figs. 1-4; title; col. 1, ll. 14-33; col. 3, ll. 22-39</p>
16	'008 [1, 23]	"wherein the shroud means is mounted at one end below the air inlet to the cyclone and extends along the outer surface with the other end at a position intermediate to the cone opening and the air inlet to the cyclone"	<p>the shroud is positioned below the air inlet to the cone-shaped cyclone and extends along the outer surface of the inner cyclone to a position somewhere before the cone opening at the bottom of the inner cyclone</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '008 patent, abstract; Figs. 1 and 2; Col. 1:13-34; Col. 1:35-49; Col. 1:65-2:47; Col. 3:22-36</p>	<p>No construction required – ordinary meaning of the claim language</p>

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
17	'008 [1, 23]	"wherein the shroud means contacts the outer surface of the cyclone for closure at the other of the ends"	the bottom end of the shroud touches the outer surface of the inner cyclone at the point where the shroud ends <i>See, e.g.:</i> ordinary meaning of the claim language '008 patent, Figs. 1 and 2; Col. 1:35-49; Col. 1:65-2:47; Col. 3:22-36	No construction required – ordinary meaning of the claim language
18	'008 [1, 23]	"wherein the shroud means has perforations adjacent to the position intermediate to the cone opening for the flow of air from the outer container to the cyclone inlet"	the shroud has perforations near the end of the shroud closest to the cone opening, so that air can pass through the perforations to the air inlet of the inner cyclone <i>See, e.g.:</i> ordinary meaning of the claim language '008 patent, Figs. 1 and 2; Col. 1:35-49; Col. 1:65-2:47; Col. 3:22-36; Col. 3:57-65	No construction required – ordinary meaning of the claim language
19	'008 [1, 23]	"disc means provided on the shroud means at a lower longitudinal extent of the shroud means and the air inlet of the cyclone and around the axis of the cyclone"	a disc that surrounds the axis of the inner cyclone and touches the bottom portion of the shroud, so that the air inlet is above the shroud and the disc is at a lower longitudinal extent of the shroud <u>Intrinsic Evidence:</u> ordinary meaning of the claim language <i>See, e.g.,</i> '748; Fig. 1; '008; Fig. 2, Col. 2:41-47; Col. 4:46-48.	No construction required – ordinary meaning of the claim language

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
20	'038 [1]	"having a tangential air inlet located at or adjacent the end of the cyclone having the larger diameter"	a tangential air inlet at or adjacent the end of the inner cyclone having the larger diameter, which is the end of the inner cyclone nearest the top of the container <i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, Figs. 1a and 3a; element 16; Col. 2:50-55	having an air inlet in a direction perpendicular to the radius of the cyclone located at or adjacent the end of the cyclone having the larger diameter <i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, Figs. 1a and 3a; element 16; col. 2, l. 50 – col. 3, l. 7
21	'038 [1]	"wherein the distance between the cone opening and the base surface is either less than 8 mm or between 30 mm and 70 mm"	the distance between the cone opening at the bottom of the inner cyclone and the base surface of the container is either less than 8 millimeters "mm" or between 30 mm and 70 mm. <i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, Figs. 1a, 1b, 3a, 3b, 3c, 4a, 4b; Col. 1:54-2:24; Col. 3:16-34; Col. 4:24-30	No construction required – ordinary meaning of the claim language
22	'038 [2]	"wherein the base surface is substantially planar"	the base surface below the cone opening is substantially planar <i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, Figs. 1a, 1b, 3a, 3b, 3c, 4a, 4b; Col. 3:45-59; Col. 4:49-55	No construction required – ordinary meaning of the claim language

Term No.	Asserted U.S. Patent(s) and Claim(s) ³	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
23	'038 [13]	"wherein the base surface has a diameter spaced around the longitudinal axis of the cyclone with an upwardly extending annular wall from the base surface wherein a diameter of the wall is greater at an end adjacent the base surface than at an end remote therefrom"	<p>(a) the base surface below the inner cyclone has a diameter spaced around the longitudinal axis of the inner cyclone with an upwardly extending annular, or ring-shaped, wall from the base surface and (b) the diameter of the annular wall is greater at the end adjacent the base surface than at the end remote from the base surface</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, abstract; Figs. 1a and 1b; Col. 1:54-2:24; Col. 2:63-65; Col. 3:16-23; Col. 3:35-57; Col. 4:31-48</p>	<p>No construction required – ordinary meaning of the claim language</p> <p>Note: agree that "annular" means "ring-shaped"</p>
24	'038 [14]	"wherein the base surface is spaced around the longitudinal axis of the cyclone with an upwardly extending annular wall from the base surface wherein the end of the wall remote from the base surface is radiused"	<p>(a) the base surface below the inner cyclone is spaced around the longitudinal axis of the inner cyclone with an upwardly extending annular, or ring-shaped, wall from the base surface and (b) the end of the annular wall remote from the base surface is radiused, or rounded</p> <p><i>See, e.g.:</i> ordinary meaning of the claim language '038 patent, abstract; Col. 1:54-2:24; Col. 2:63-65; Col. 3:16-23; Col. 3:35-57; Col. 4:31-48</p>	<p>No construction required – ordinary meaning of the claim language</p>

CLAIM TERMS FROM THE ASSERTED PATENTS ON WHICH
DYSON AND MAYTAG HAVE REACHED AGREEMENT ON CONSTRUCTION

Term No.	Asserted U.S. Patent(s) and Claim(s)	Term	Agreed Construction
1	'515 [14] '748 [15] '008 [1, 23]	"a circular cross-sectioned cyclone"	a circular cross-sectioned device that uses centrifugal force to separate materials from the air
2	'515 [14] '748 [15] '008 [1, 23]	frusto-conical shape	a cone-shape that has its tip cut off parallel to its base
3	'515 [14]	"ring seal means between the chamber and outer container"	a ring-shaped seal between the chamber and outer container
4	'515 [14]	"the air flow rotating around the frusto-conical interior surface of the cyclone and the inner surface of the receiving chamber and depositing dirt in the receiving chamber"	[Note: The parties agree that the "receiving chamber" in this term is the "dirt receiving and collecting chamber" referenced earlier in the claim.]
5	'038 [1]	"a frustoconical cyclone"	a cone-shaped cyclone that has its tip cut off parallel to its base